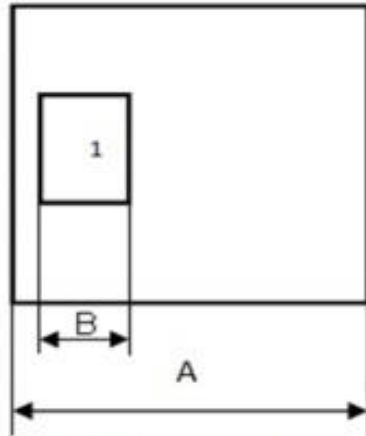



**Ultra Low Capacitance uni-directional TVS diode**

**Schematic and pinning diagram**

**Mechanical data:**  $A_x = 290 \mu\text{m}$ ,  $A_y = 290 \mu\text{m}$ ,  
 $B_x = B_y = 80 \mu\text{m}$

**Chip thickness:**  $138 \pm 12 \mu\text{m}$  on 4" wafer.

**Scribe Line width** - 40 $\mu\text{m}$ .

**Top Metal - Pin 1:** Al metallization for wire bonding.

**Back side – Pin 2:** Ti-Ni-Ag for soldering.

**Probing: sampling testing:** no bad dice inking guaranteed good dice quantity  $\geq 93\%$

**Limiting values**

Parameter	Symbol	Conditions	Value	Unit
Peak pulse power	$P_{pp}$	8/20 $\mu\text{s}$ pulse per diode	60*	W
Peak pulse current	$I_{pp}$	8/20 $\mu\text{s}$ pulse per diode	4*	A
Electrostatic Discharge	ESD	IEC 61000-4-2, level 4 (ESD)	>15 (air); >8 (contact)	kV
Max.junction temperature	$T_j$		150	$^{\circ}\text{C}$

**Characteristics ( $T_a = 25^{\circ}\text{C}$ )**

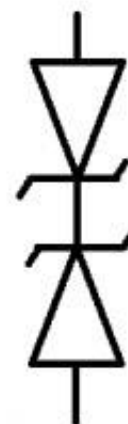
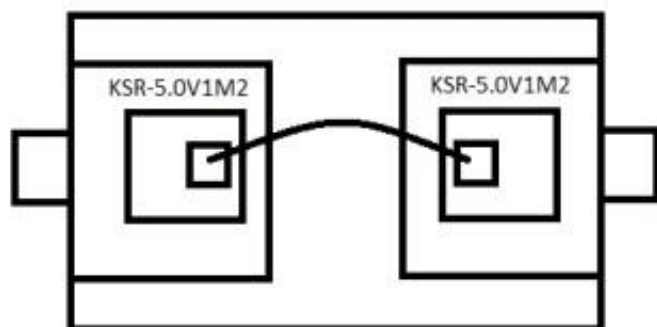
SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
$V_{RWM}$	Reverse Stand-Off Voltage.		-	-	5,0	V
$I_R$	Reverse leakage current.	$V_R = +5,0 \text{ V}$	-	-	1,0	$\mu\text{A}$
$V_{BR}$	Breakdown voltage.	$I = 1 \text{ mA}$	6,0	7,0	-	V
$V_F$	Forward voltage	$I_F = 15 \text{ mA}$	-	-	1,15	V
$V_{CL}$	Clamping Voltage	$I_{pp} = 1 \text{ A}$ , $t = 8/20 \mu\text{s}$ ; $I_{pp} = 4 \text{ A}$ , $t = 8/20 \mu\text{s}$	-	-	10,0* 15,0*	V
$C_j$	Capacitance.	$V_R = 0 \text{ V}$ ; $f = 1 \text{ MHz}$ .	-	0,5	0,7	pF

\*- For Device testing



## KSR-5,0V1M2

Bi-directional device option with two dice KSR-5.0V1M2 usage:



Schematic and pinning diagram

### Limiting values

Parameter	Symbol	Conditions	Value	Unit
Peak pulse power	$P_{pp}$	8/20 uS pulse per diode	63*	W
Peak pulse current	$I_{pp}$	8/20 uS pulse per diode	3.5*	A
Electrostatic Discharge	ESD	IEC 61000-4-2, level 4 (ESD)	>15 (air); >8 (contact)	kV
Max.junction temperature	$T_j$		150	°C

### Characteristics ( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
$V_{RWM}$	Reverse Stand-Off Voltage.		-	-	5,0	V
$I_R$	Reverse leakage current.	$V_R=+5,0\text{ V}$	-	-	1,0	uA
$V_{BR}$	Breakdown voltage.	$I=1\text{mA}$	6,3	7,5	-	V
$V_{CL}$	Clamping Voltage	$I_{pp}=1\text{A}, t=8/20\text{uS};$ $I_{pp}=3.5\text{A}, t=8/20\text{uS}$	-	-	10,0* 18,0*	V
$C_j$	Capacitance.	$V_R=0\text{ V}; f = 1\text{ MHz.}$	-	0,25	0,35	pF

\*- For Device testing